HOME

A R A B E S Q U E

The Project

Arabesque was a multidisciplinary oceanographic research project focused on the Arabian Sea and Northwest Indian Ocean during the monsoon and intermonsoon season in 1994.

Funding for Arabesque was provided by the Ministry of Defence/ Defence Research Agency Joint Grant TQ/10/3/2 and Amersham International as well as the Natural Environment Research Council.

Arabesque was almost entirely field based with extensive physical, chemical and biological measurements made in the Gulf of Oman, the Arabian Sea and the Northwest Indian Ocean.

Scientific Objectives

The detailed scientific objectives of Arabesque were to quantify the seasonal influence of the Monsoon winds in the Arabian Sea on:

- upwelling of nutrients and the resultant production and fate of phytoplankton, in terms of size-fractionated, new and regenerated production.
- vertical and on-shelf gradients of heterotrophic, methanogenic and denitrifying bacteria.
- distribution of chemotaxonomic pigments with links to optical properties of seawater.
- The Dissolved Inorganic and Organic Carbon cycle
- air-sea exchange of Sulphur and Nitrogen biogases including dimethyl sulphide, methylamines and methane.
- sedimentation rates and the fate of organic matter through the oxygen depleted zone.

A final objective was to calibrate satellite data on ocean colour so as to map the biogeochemistry of the northwestern Indian Ocean.

Data Management

Data management services to the Arabesque project were provided by the British Oceanographic Data Centre, funded by the UK Natural Environment Research Council.

The data management operation began with the collection of data at sea and culminated in the publication of the project data set as a clearly defined project deliverable.

During the life of the project, the data management team provided the following services to the project scientists:

- Calibration and quality control of automatically logged data (generally CTD and underway data) to a common standard in close co-operation with the scientists collecting the data.
- Providing a vehicle for data exchange within the project through the provision of an on-line database and a request service.
- Adding value to the data set through the integration of large numbers of disparate data sets into a common integrated data base.

The data management operation identified a total of 62 discrete data sets collected during the project. Of these, over 90% have been assembled into the database presented on this CD-ROM.